AMENDMENTS TO THE CLAIMS

1. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer, said paper feeding device comprising:

a paper feeding motor,

a picking mechanism including a picking roller motorized by the paper feeding motor, the picking roller adapted to pick a sheet of paper from a stack and move the paper in a picking direction along a picking path,

at least one motor roller located downstream of the picking roller along the picking direction, and motorized by the paper feeding motor, the motor roller adapted to retract the sheet in a retraction direction opposite the picking direction, the motor roller further adapted to move the sheet through the printer in a printing direction consistent with the picking direction,

a deflector adapted to contact the sheet when the motor roller retracts the sheet in the retraction direction, the deflector adapted to deflect the sheet onto an alternative path to the picking path,

a changeover mechanism arranged downstream of said paper feeding motor and suitable for actuation in response to predetermined operating conditions of the printer to operate the picking roller to move the sheet at high speed during movement in the picking direction, to operate the at least one motor roller to move the sheet at high speed during movement in the retraction direction, and to operate the at least one motor roller to move the sheet at low speed during movement of the paper in the printing direction.

2. (Previously Presented) Device according to claim 1 wherein the at least one motor roller is further adapted to move the sheet in the printing direction to position the sheet for printing after retracting the sheet in the retraction direction.

3. (Previously Presented) Device according to claim 1, wherein said changeover mechanism is adapted to move the sheet at high speed after printing in the direction of printing to eject the sheet from the printer.

4. (Cancelled)

5. (Currently Amended) ~~Device according to claim 4,~~ Paper feeding device for dot printers, for example for a compact, ink jet photographic printer, comprising:

a paper feeding motor,

a changeover mechanism arranged downstream of said paper feeding motor and suitable for actuation in response to predetermined operating conditions of the printer to move a sheet to be printed at high speed in preparation for printing and at low speed during printing, and

an actuating member adapted to operate the changeover mechanism at high speed when the paper feeding motor rotates in a first direction, the changeover mechanism further adapted to switch the changeover mechanism to low speed when the paper feeding motor rotates in a second direction opposite to the first direction,

wherein said actuating member is fulcrum-mounted on the axis of the feeding motor and is suitable for assuming angular positions associated with a first configuration for movement of the sheet at high speed and with a second configuration for movement of the sheet at low speed.

6. (Currently Amended) ~~Device according to claim 4,~~ Paper feeding device for dot printers, for example for a compact, ink jet photographic printer, comprising:

a paper feeding motor,

a changeover mechanism arranged downstream of said paper feeding motor and suitable for actuation in response to predetermined operating conditions of the printer to move a sheet to be printed at high speed in preparation for printing and at low speed during printing,

an actuating member adapted to operate the changeover mechanism at high speed when the paper feeding motor rotates in a first direction, the changeover mechanism further adapted to switch the changeover mechanism to low speed when the paper feeding motor rotates in a second direction opposite to the first direction,

~~further comprising~~ a blocking group for blocking the position of the actuating member and overriding servo dependency on the direction of rotation of the paper feeding motor, and

a control group operable to de-activate said blocking group.

7. (Previously Presented) Device according to claim 6 wherein the printer comprises a carriage for a printhead movable along a printing area, and said control group is servo dependent on the carriage for re-establishing servo control of the actuating member when the carriage is in a working position external to the printing area.

8. (Previously Presented) Device according to claim 7, wherein the paper feeding device is applied on an ink jet printer comprising a cleaning station in an end-of-stroke-position, said working position being adjacent to said cleaning station.

9. (Previously Presented) Device according to claim 6, wherein said blocking group comprises storing elements for storing a setting condition of said blocking group.

10. (Cancelled)

11. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer, said paper feeding device comprising:

a paper feeding motor,

a picking mechanism including a picking roller motorized by the paper feeding motor, the picking roller adapted to pick a sheet of paper from a stack and move the paper in a picking direction along a picking path,

at least one motor roller located downstream of the picking roller along the picking direction, and motorized by the paper feeding motor, the motor roller adapted to retract the sheet in a retraction direction opposite the picking direction along an alternative path to the picking path, the motor roller further adapted to move the sheet through the printer in a printing direction consistent with the picking direction,

a changeover mechanism arranged downstream of said paper feeding motor and suitable for actuation in response to predetermined operating conditions of the printer to operate the picking roller to move the sheet at high speed during movement in the picking direction, to operate the at least one motor roller to move the sheet at high speed during movement in the retraction direction, and to operate the at least one motor roller to move the sheet at low speed during movement of the paper in the printing direction, and

a passage sensor switchable by a sheet in an end-of-picking position, wherein movement of the motor roller in the retraction direction starts with a switching of the passage sensor and terminates with another switching of the passage sensor upon the sheet passing through the end-of-picking position.

12. (Previously Presented) Device according to claim 1, further comprising a blocking group, wherein activation of the blocking group causes inversion of the direction of motion of the paper feeding motor to position the sheet for printing.

13. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer, said paper feeding device comprising:

a paper feeding motor,

a picking mechanism including a picking roller motorized by the paper feeding motor, the picking roller adapted to pick a sheet of paper from a stack and move the paper in a picking direction along a picking path,

at least one motor roller located downstream of the picking roller along the picking direction, and motorized by the paper feeding motor, the motor roller adapted to retract the sheet in a retraction direction opposite the picking direction along an alternative path to the picking path, the motor roller further adapted to move the sheet through the printer in a printing direction consistent with the picking direction, and

a changeover mechanism arranged downstream of said paper feeding motor and suitable for actuation in response to predetermined operating conditions of the printer to operate the picking roller to move the sheet at high speed during movement in the picking direction, to operate the at least one motor roller to move the sheet at high speed during movement in the retraction direction, and to operate the at least one motor roller to move the sheet at low speed during movement of the paper in the printing direction,

a blocking group, wherein activation of the blocking group causes inversion of the direction of motion of the paper feeding motor to position the sheet for printing, and

a reference sensor switchable for a reference position of the sheet with respect to the printing area, wherein commutation of the reference sensor in the sheet reference position

terminates motion of the paper feeding motor to position the sheet for printing.

14. (Cancelled)

15. (Previously Presented) Device according to claim 5 further comprising a blocking group including a stopping member for blocking said actuating member in the first configuration, and a removing element operable to deactivate the stopping member.

16. (Previously Presented) Device according to claim 1, wherein the picking mechanism further includes a clutch suitable for being connected with the paper feeding motor.

17. (Cancelled)

18. (Previously Presented) Device according to claim 1, further comprising a worm screw and helical wheel coupling actuatable by the changeover mechanism for low speed movement of the sheet to be printed.

19. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer, comprising:

a paper feeding motor,

a first kinematic linkage associated with said feeding motor for producing high speed movements of a sheet during picking of the sheet from a stack and during preparation for printing,

a second kinematic linkage associated with said feeding motor and having a transmission ratio different from that of said first kinematic linkage for producing low speed sheet movements during printing, and

an actuating member for selectively operating the first kinematic linkage or the second kinematic linkage,

wherein, for a given direction of rotation of said motor, the second kinematic linkage imparts movement to the sheet in a direction opposite to that of the first kinematic linkage.

20. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer, comprising:

a paper feeding motor,

a first kinematic linkage associated with said feeding motor for producing high speed movements of a sheet during picking of the sheet from a stack and during preparation for printing,

a second kinematic linkage associated with said feeding motor and having a transmission ratio different from that of said first kinematic linkage for producing low speed sheet movements during printing, and

an actuating member for selectively operating the first kinematic linkage or the second kinematic linkage,

wherein, for a given direction of rotation of said motor, the second kinematic linkage imparts movement to the sheet in a direction opposite to that of the first kinematic linkage, and

a pinion connected to the paper feeding motor,

wherein said actuating member comprises a plate supporting first and second intermediate tooth wheels meshing with the pinion and wherein said plate is adapted to be driven by said pinion in the direction of rotation of the feeding motor for rotatably connecting the first or second intermediate tooth wheel with the first or second kinematic linkage.

21. (Previously Presented) Device according to claim 20 further comprising a blocking group that is suitable for being actuated to block said plate in a predetermined configuration allowing operativity of the first kinematic linkage for two directions of rotation of the motor.

22. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet photographic printer comprising:

a carriage for a printhead movable along a printing area,

a paper feeding motor,

a picking mechanism for picking from a pack and feeding one by one the sheets to be printed,

a clutch for operatively connecting said picking mechanism with the paper feeding motor,

a first kinematic linkage associated with said feeding motor for producing high speed movements of the sheets;

a second kinematic linkage associated with said feeding motor for producing low speed movements of the sheets; and

a control group adapted to command the clutch and the first and second linkages based on different positions of the carriage outside the printing area, wherein the control group is adapted to engage the first kinematic linkage or the second kinematic linkage based on the position of the carriage.

23. (Previously Presented) Paper feeding device for dot printers, for example for an ink jet, photographic printer, said feeding device comprising:

a paper feeding motor including a pinion;

a kinematic linkage comprising a worm screw that is suitable for being actuated by the paper feeding motor and a helical wheel for moving a sheet at low speed in association with printing;

a support for said worm screw, said support being movable between a first position where the worm screw is in engagement with the helical wheel, and a second position where the worm screw is disengaged from the helical wheel;

an intermediate tooth wheel that rotates on said support integral with rotation of said worm screw, the intermediate tooth wheel meshing with the pinion;

wherein the support is adapted to be driven to the first position by the pinion upon a predetermined direction of rotation of the motor to engage the worm screw with the helical wheel.

24. (Cancelled)

25. (Previously Presented) Device according to claim 23, further comprising friction means comprising the worm screw and the intermediate tooth wheel, the friction means having an anti-vibration function in the meshing between said worm screw and said helical wheel.